

extinct there in the 16th or 17th centuries; it is still found in decreasing numbers in Morocco and southeastern Turkey. It is now known to winter in Eritrea and Ethiopia, thus supporting the ancient Greeks statement that "they inhabited Arabia and had migrated thence" (Thompson, *loc. cit.*), Arabia being meant in a broad sense.

Address: Michael Desfayes, chemin de Prévent, 1926 Fully, Switzerland.

© British Ornithologists' Club 1987

Fifty-two Amazonian bird species new to Bolivia

by T. A. Parker, III & J. V. Remsen, Jr

Received 3 October 1986

In the course of field studies of birds in the department of Pando, Amazonian northwestern Bolivia, from 9 June to 8 August 1986, we and our colleagues obtained records of 52 species (42 documented by specimens, 5 by sound recordings, and 5 by sight records) not known previously from Bolivia and the first specimens of one species previously known only from a sight record. Although this number of species new to a country is extraordinary by modern standards, it was not surprising to us because Dpto. Pando, an area nearly as large as Costa Rica, is almost unknown ornithologically. The only previous collecting locality in Dpto. Pando was "Victoria", c. 300 km to the east at the junction of the Madre de Díos and Beni rivers (Gyldenstolpe 1945a). We also report the first records of one species for Peru and one for Brazil.

Our main study site was c. 12 km south of Cobija, then c. 8 km west on the road to Mucden (Mukden on many maps), Prov. Nicolás Suarez, 325 m elevation (hereafter "Camino Mucden"), in the Acre-Purús drainage, at about 11°9'S, 68°51'W. The habitats at the study site were upland tropical forest on somewhat sandy soil, streamside forest with undergrowth dominated by bamboo, second-growth forest at various stages of regeneration, a small marsh, and an extensive cattle pasture; the general topography was rolling hills. The site will be described in greater detail elsewhere (Remsen *et al.* in prep.). Of the 365 species recorded at the site, specimens of 305 (84%) were obtained; we think that this may be one of the most thoroughly sampled sites in Amazonia. Other sites were briefly surveyed in the Porvenir area south of Cobija, and one trip was made by boat c. 40 km up the Río Tahuamanu from Porvenir.

Few localities have been thoroughly sampled for birds in southwestern Amazonia. Those nearest to our Cobija localities are in southeastern Peru and western Brazil and are hereafter referred to as the "nearby" localities: (1) the Tambopata Reserve at the junction of the Río Tambopata and Río La Torre, Dpto. Madre de Díos, Peru (hereafter "Tambopata") (Parker 1982, and unpubl. data), c. 197 km SSW of our Camino Mucden site; (2) Mouth of Quebrada Juliaca on Río Heath, c. 50 km (by river) south of Puerto Pardo, 525 m, Dpto. Madre de Dios (hereafter "Quebrada Juliaca"), Peru,

on the opposite bank of the Río Heath from Bolivia (Graham *et al.* 1980; unpubl. specimen data, Louisiana State University Museum of Zoology – LSUMZ), c. 200 km south of Camino Mucden; (3) Cocha Cashu Biological Station, Manu National Park, Dpto. Madre de Díos (hereafter “Manu”) (Terborgh *et al.* 1984), Peru, c. 280 km WSW of Camino Mucden; (4) Balta, Río Curanja, Dpto. Ucayali (O’Neill 1969, 1974), Peru, c. 285 km WNW of Camino Mucden; (5) several localities (Río Iquiri, Plácido de Castro, Río Branco) in Acre, Brazil (Pinto & Camargo 1954), 177–212 km NE of Camino Mucden; (6) several localities on the upper Río Purús, Amazonas, Brazil (Snethlage 1908, Gyldenstolpe 1951, Haffer 1974), c. 310 km (Porto Alegre, Monte Verde, Bom Lugár), 520 km (Cachoeira), or 560 km (Hiutanaã=“Hyutanahán”) NE of Camino Mucden.

All specimens are housed at the LSUMZ or the Museo Nacional (MNB) (La Paz, Bolivia). Unless noted otherwise, all sound recordings are deposited at the Library of Natural Sounds (LNS), Laboratory of Ornithology, Cornell University. For identification of initials of observers other than the authors, see Acknowledgements.

VARIEGATED TINAMOU *Crypturellus variegatus*

Heard almost daily at Camino Mucden in upland forest, a habitat that it shared with *Tinamus guttatus* and *Crypturellus strigulosus*. The song of *C. variegatus* consists of a 2 sec long, clear, introductory whistle on one pitch, followed by a short pause, and an accelerating, rising series of up to 8 short whistles. *T. guttatus* gave a similar, but lower-pitched hollow introductory whistle followed by a short pause and then a short note (“whoooooooooo, whooo”). *C. strigulosus*, which seemed to be associated with large treefalls in upland forest, uttered a 6 sec long, slowly rising whistle that began to quaver at the end. The preceding species have probably been overlooked frequently due to a paucity of accurate published information on their voices. A juvenal *C. variegatus* was netted on 2 July, and MSS collected 2 adults 13 July and 6 Aug. Among the nearby localities, this species had been recorded from Tambopata, at nearly 13°S, the southernmost known locality – TAP, unpubl. LNS, Manu, Balta and Hiutanaã.

WHITE-BROWED HAWK *Leucopternis kuhli*

JVR studied one in the canopy of upland forest at Camino Mucden on 19 July; it was attracted by whistled imitations of its call (an explosive “pssseeeeeee-yoo”) down from the canopy to within 15 m of the observer. The striking white eyebrow, white underparts, dark slaty upperparts, and dark tail with single conspicuous white band were all seen clearly. TAP also confirmed the identification of the call from listening to JVR’s microcassette recording of his imitation of the call made moments after the sighting. Among the nearby localities, it had been recorded at Tambopata, Manu and Balta.

BLACKISH RAIL *Rallus nigricans*

KVR and JAG saw several at the edge of a small marsh bordering a cattle pasture on 29 July. JVR saw one in marshy vegetation along a stream through a field on 4 Aug. On both occasions, the observers noted that the birds were almost as large as a gallinule, were overall dark and unpatterned, and had moderately long, slightly decurved bills; JVR also noted a red iris and greenish bill, and that the bird was mostly dark grey below and dark olive above. Among the nearby localities, it had been recorded only at Tambopata and Manu.

CHESTNUT-HEADED CRAKE *Anurolimnas castaneiceps*

This little known species was heard almost daily at Camino Mucden in tall second-growth along the road and in nearby overgrown gardens surrounded by forest, and also in the latter habitat 2 km west of Porvenir along the road to Cachuelita on 11 and 24 June. In both areas pairs with 1–2 nearly grown young were observed on the ground in dark, damp thickets with an almost impenetrable cover of broad-leaved *Heliconia*-like plants and decaying trunks and limbs of trees on old garden plots thoroughly shaded by even-aged stands of short trees (4–10 m tall) and tall banana plants. Thus, at our sites (and elsewhere in Amazonia; TAP,

unpubl.) *A. castaneiceps* was not the forest-dweller it is reported to be in current literature, e.g. Ripley (1977). The birds were extremely wary and difficult to see in the deep shade of these thickets. While walking on the ground, they regularly flicked fallen leaves and probed debris and rotting wood. The song was an *Odontophorus*-like synchronized duet performed by both adults while standing erect and side-by-side; it began suddenly and loudly with one bird uttering a higher-pitched "ti-too" phrase immediately answered by, and sometimes overlapping with, a "ti-turro" phrase (the terminal part sometimes trilled) of the second bird. This was repeated without pause to produce a long (up to 3-4 minutes) antiphonal series that could be transcribed as "ti-too, ti-turro, ti-too, ti-turro . . .". When disturbed, the birds uttered a variety of soft "tuk" or "tik" notes, as well as barely audible, low-pitched growls 2-3 sec long. TAP collected one at Camino Mucden on 22 June and one 2 km west of Porvenir on 24 June. Among the nearby localities, it had been recorded only at Tambopata and Balta, but apparently not yet from Brazil, the border of which is only 13 km north of our site.

BLUE-HEADED MACAW *Ara couloni*

Pairs of this small macaw were observed and tape-recorded as they flew over forest and a clearing near the north bank of the Río Tahuamanu 2 km west of Porvenir on 10 and 11 June (TAP), and 4 were seen flying across the Tahuamanu c. 10 km west of Philadelphia on 15 June (TAP, EIF). Noted only 3 times at Camino Mucden and only in flight. In both areas, particularly along the Tahuamanu, it was greatly outnumbered by the similarly-sized *A. manilata*, which was seen daily in flocks of 4-6, and occasionally up to 20. The voices of these species are easily distinguished: *couloni* uttered soft, slightly nasal and raspy flight calls ("raah-raah") at irregular intervals, whereas *manilata* gave more squealy calls often and in chorus. TAP also saw pairs of *couloni* 1 km north of Brasilea on 26 June and at Capixaba, c. 80 km SW of Rio Branco on 27 June. Both localities are in Acre, Brazil, and are the first records for that country. Among the nearby localities, it had been recorded at Tambopata (where uncommon and irregular), Manu and Balta. This macaw seems to survive in cutover areas with scattered patches of forest and may be expanding its rather small range in southwestern Amazonia.

SCARLET-SHOULDERED PARROTLET *Touit huetii*

Tape-recorded and seen 7 times by TAP along the Porvenir-Philadelphia road on 6 days between 11 and 25 June. Noted in tightly knit flocks of 10-16 birds that flew high overhead whilst constantly giving raspy calls ("juwee"). 4 flocks (of 10+, 12, 14 and 20+ individuals) were also seen flying over forest and the road at Camino Mucden 16 June - 28 July (TAP, JVR). Among the nearby localities, it had been recorded only at Tambopata. Unrecorded nearby in Peru and Brazil probably because of its very quiet and inconspicuous habits while perched. Its irregular appearances at known localities hint that it might also be nomadic.

ORANGE-CHEEKED PARROT *Pionopsitta barrabandi*

This forest species was noted daily in small numbers at the Camino Mucden site, where single birds (occasionally 2-3) were regularly heard and glimpsed flying low over the canopy or across the road. Although vocal in flight, it was quiet when perched and thus was only occasionally seen in the forest interior (in fruiting trees). The flight call, a smooth, upslurred "kaweeek," is similar to but clearer than the harsher call of *Pionopsitta menstruus*, a fairly common species of riverine forest and forest edge. *Pionopsitta barrabandi* infrequently give guttural "kuk" or "kek" notes, either singly or in short series while flying. CEQ collected one on 15 June, and JVR collected one on 23 July; in both cases, the birds were seen within 5 m of the ground. The only previous record for Bolivia was JVR's sight record from Tumi Chucua (Remsen & Ridgely 1980). Among the nearby localities, it had been recorded from Tambopata, Manu, Balta and Bom Lugar.

BLACK-BELLIED CUCKOO *Piaya melanogaster*

Seen on 9 of 51 days of fieldwork, usually as singles or pairs in the canopy and subcanopy of upland forest, often with mixed-species flocks of canopy insectivores. KVR collected specimens on 3, 4 and 10 July, and JVR collected one on 27 July. Among the nearby localities, it had been recorded only at Tambopata and Balta, but the species is usually uncommon and easily overlooked.

LEAST PYGMY-OWL *Glaucidium minutissimum*

TAP heard from 1-3 daily in upland forest and forest edge at Camino Mucden 16-23 June. Most vocal at dusk and on moonlit nights, they also sang sporadically throughout the day. Subsequently, they were heard regularly, mostly in the canopy of upland forest. JVR collected 2 males lured in by whistled imitations of their song at midday, on 11 July and 1 Aug;

in neither case did the birds descend below 20 m. Among the nearby localities, it had been recorded at Tambopata, Manu, Quebrada Juliaca (recordings, LNS) and Balta, although the latter remains the only specimen locality for Peru.

GREY-RUMPED SWIFT *Chaetura cinereiventris*

Taxonomic treatments of the *cinereiventris*-*egregia* group of swifts have variously considered *egregia* to be a subspecies of *C. cinereiventris* or a species most closely related to *cinereiventris*. In the absence of a detailed analysis of the systematics of neotropical *Chaetura*, we favour retention of *egregia* as a full species, because it is at least as different, phenotypically, from *cinereiventris* as is *C. vauxii* from *C. pelagica*, a closely related pair with each member currently treated as a species. In fact, we are unaware of published evidence that *cinereiventris* and *egregia* are conspecific or even that they are sister taxa. Sympatry, however, of breeding *egregia* and *cinereiventris* in South America has not been demonstrated. The only previous specimen record for Bolivia of either *cinereiventris* or *egregia* is that of Todd (1916) of one *egregia* specimen (the type) from Dpto. Santa Cruz.

Seven specimens of *cinereiventris* were collected by JAG, KVR, CGS and JVR at Camino Mucden from 25 June to 9 July. Three *egregia* were also collected from the same flocks. Of the 7 *cinereiventris*, 6 exhibited light to moderate head or body moult, 6 showed light to moderate subcutaneous fat, and 6 of 6 sexed specimens were in nonbreeding condition. The 3 *egregia* specimens all exhibited light to moderate head or body moult, all showed light to moderate fat, and all were in nonbreeding condition. Thus, we cannot rule out the possibility that all individuals of both taxa were migrants from elsewhere. A flock of 25-75 individuals containing both taxa was present nearly daily at Camino Mucden, especially over overgrown fields along the road. *C. cinereiventris* could be distinguished readily in the field from *egregia* by its shorter wing length and darker rump; our estimates of the ratio of *cinereiventris* to *egregia* ranged from 5:1 to 3:1. Also associating with the *cinereiventris*-*egregia* flock were 2-10 *C. brachyura*, many of which engaged in apparent displays, with pairs usually flying parallel courses near each other with exaggerated, slow wingbeats while giving dry, sharp, slowly delivered tick notes. Although the displays led us to expect that the *brachyura* were breeding, the 2 specimens collected were not in breeding condition; one had light and the other moderate fat, and both exhibited body moult. (There was only one previous specimen record of *brachyura* for Bolivia, one from Dpto. Beni-Pearson 1977.)

Among the nearby localities, specimens of *cinereiventris* were known only from Balta, where *egregia* has also been collected.

LESSER SWALLOW-TAILED SWIFT *Panyptila cayennensis*

TAP saw one flying high over swampy, riverine forest along the Río Tahuamanu c. 2 km west of Cachuelita on 12 June and a pair with a small flock of *Chaetura egregia* high over the *Mauritia* palm swamp 1 km north of Porvenir on 24 June. Noted also by many observers at Camino Mucden on 5 days, and a 2 km west of Porvenir on 15 July. Among the nearby localities, it had been recorded only at Tambopata and Manu.

NEEDLE-BILLED HERMIT *Phaethornis philippi*

This was the common large *Phaethornis* in forest at Camino Mucden, where 53 specimens were netted 16 June – 6 Aug; *P. superciliosus* was also present but only 4 were netted. Although the type of locality is often given as "Bolivia," the origin of the type has been questioned, especially because the type specimen itself is labelled "Peru" (Zimmer 1950); furthermore, the historical loss of Bolivian territory to nearby Brazil and Peru since the type description in 1847 provides further complications. Among the nearby localities, it had been recorded at Tambopata, Quebrada Juliaca, and Cachoeira. Because large *Phaethornis* are usually conspicuous and relatively easy to collect, the apparent absence of *P. philippi* from other localities in the region suggests a patchy distribution.

BLACK-BELLIED THORNTAIL *Popelairia langsdorffi*

JVR studied an adult male at close range at the edge of second-growth forest at Camino Mucden on 19 July and 4 Aug; in both cases the bird searched deliberately the surfaces of large leaves, c. 12 x 10 cm, c. 5 m up in a small tree. On 26 July only a few metres from the same tree, CEQ collected an adult male in a flowering *Inga* tree, apparently a favoured feeding site for this species; Hilty & Brown (1986). Previously, TAP had seen a female *Popelairia*, almost surely of this species, on 9 June in the crown of a tall forest tree with small pink flowers. Among the nearby localities, it had been recorded only at Balta.

WHITE-THROATED JACAMAR *Brachygalba albogularis*

On 15 June, TAP, EIF and Fritz Hertel observed a pair perched in the canopy of 20 m tall

Cecropia trees along the south bank of the Río Tahuamanu between Filadelfia and Cachuelita. They perched quietly on slender branches in the shade of the large leaves and frequently sallied 1-10 m to capture butterflies flying by, including small sulphurs (*Eurema* sp.) and purplewings (*Eunica* sp.), and wasps. The birds called infrequently (a plaintive, upslurred "psueet") and could easily have been overlooked. Among the nearby localities, it had been recorded at Tambopata, Balta and Monte Verde.

BLUISH-FRONTED JACAMAR *Galbula cyanescens*

On 14 and 15 June TAP found several pairs in mixed-species flocks, 12-20 m up in tall forest on the banks of the Río Tahuamanu c. 10 km west of Filadelfia; TAP also saw 2 pairs in second-growth at the edge of swampy forest near Cachuelita on 25 June. One was netted in streamside bamboo at Camino Mucden on 9 July, 3 on 17 July, and one was collected by JAG on 30 July. *G. cyanescens* is apparently replaced by *G. ruficauda* in Bolivia south of the Río Madre de Dios, as at Victoria (Gyldenstolpe 1945a). Among the nearby localities, it had been recorded from Tambopata, Quebrada Juliaca, Manu, Balta, Río Iquiri, Río Abunã, Bom Lugár, Monte Verde, Ponto Alegre, Cachoeira and Hiutanaã.

BRONZY JACAMAR *Galbula leucogastra*

TAP tape-recorded one in upland forest at Camino Mucden on 17 June. JVR saw and tape-recorded (Florida State Museum) one at Camino Mucden in a mixed-species flock of forest canopy insectivores on 4 July, and JAG saw one there on 9 July. JVR collected one from such a flock on 21 July and collected a pair high above a treefall gap on 24 July. The nearest previously known locality (for *G.l. chalcothorax*) was c. 500 km northwest at João Pessôa, Rio Juruá, Amazonas, Brazil (Gyldenstolpe 1945b).

Two subspecies of *G. leucogastra* are currently recognized, the nominate subspecies (to which our Pando specimens are assigned) and the western form *chalcothorax*. To be consistent with current species-level taxonomy in the Galbulidae (Haffer 1974), we strongly recommend recognition of *chalcothorax* as a full species. At present, allopatric jacamars in Amazonia that show marked phenotypic differences and no signs of interbreeding are given full species status (although we recognize that these taxa may be "oversplit"), i.e. *Galbalcyrhynchus leucotis* – *G. purusianus*, *Galbula albirostris* – *G. cyanicollis*, *Galbula tombacea* – *G. cyanescens* – *G. ruficauda*, and *Brachygalba* spp. Except for the *Brachygalba* group, *chalcothorax* differs more from nominate *leucogastra* than do any of the forms from one another within the above superspecies, most of which differ from one another by only one plumage character. *G. chalcothorax* is strongly tinged reddish-purple, whereas *G. leucogastra* is bronzy-green; the white belly that is so conspicuous in *leucogastra* is reduced to a few white feather tips on a generally blackish belly in *chalcothorax*; and *chalcothorax* is noticeably larger than *leucogastra* (measurements in Haffer 1974). Apparently, the only reason that Haffer did not elevate *chalcothorax* to species status was that the substantial gap between its known range and that of the nominate subspecies left open the possibility that the 2 forms might or do interbreed if and where they come together. We believe that the strong differences between the forms in the absence of major river barriers between their ranges suggests that no interbreeding occurs or would occur. An appropriate English name for *G. chalcothorax* would be "Purplish Jacamar".

BROWN-BANDED PUFFBIRD *Notharchus ordii*

MSS collected a pair from high in the forest canopy at Camino Mucden on 23 June. This was our only record in 54 days of field work at that site. The nearest previously known localities were north of the Amazon at Tefé, Amazonas, Brazil, and south of the Amazon in eastern Pará, over 985 and 1800 km to the north and northeast, respectively. Clearly, this species occurs in low densities and is very difficult to detect.

FULVOUS-CHINNED NUNLET *Nonnulla sclateri*

JVR collected one in second-growth forest at Camino Mucden on 6 July, and on 28 July JVR collected another, found by CGS, in a bamboo patch along a road. Six additional specimens were netted along a stream at the forest edge, mainly in or near bamboo thickets 10 July – 4 Aug. The nearest previously known locality was Balta, and it was known from perhaps as few as 6 localities and c. 20 specimens in the Juruá, Purús and Madeira drainages.

GOLDEN-COLLARED TOUCANET *Selenidera reinwardtii*

Noted daily, mainly in the middle storey and canopy of upland forest at Camino Mucden. Its distinctive, guttural, nasal song ("gyow, gyow, gyow, gyow, . . .") was heard at all times of the day. 12 specimens were netted or collected 3–30 July. Among the nearby localities, it had been recorded at Tambopata, Quebrada, Juliaca, Manu and Balta.

BAR-BELLIED WOODCREEPER *Hylexetastes stresemanni*

A pair was netted in forest at Camino Mucden on 24 June, our only certain record in 54 days of fieldwork; thus, this species must have very large territories, as found by Willis (1982) for *H. perrotti*, or very specific and narrow habitat requirements. Among the nearby localities, *H. stresemanni* was known only from Río Iquiri and Hiutanaã (Cory & Hellmayr 1925). Previously published sight records from Manu (Munn & Terborgh 1979) were subsequently considered invalid (Terborgh *et al.* 1984).

POINT-TAILED PALMCREEPER *Berlepschia rikeri*

TAP saw 3 in a Mauritia palm swamp c. 1 km north of Porvenir on 10 June. CEQ, JAG, and KVR collected 2 there on 18 July. The Porvenir birds crept about the green palm fronds, often hanging nearly upside down, while using the tail as a brace, to probe curled, green blades of the fronds. Only occasionally did they search dead fronds hanging near the trunks. *B. rikeri* would be quite difficult to detect were it not for its distinctive song, usually a rapid, staccato, antiphonal duet (occasionally only one bird sings) that consists of a soft introductory phrase followed by a loud, accelerating 4-5 sec series on one pitch ("ka-koo, didididididididid"). These vocalizations are rather woodpeckerlike and could be confused at a distance with the slower, softer song of *Colaptes punctigula*, a species that frequents the same habitat. Among the nearby localities, *B. rikeri* had been recorded only at Tambopata. It was first found there on 8 Aug 1981 by Derek Scott in *Mauritia* along the edge of Laguna Cocococha; currently, 3 pairs inhabit the palm groves along this oxbow lake (TAP, LNS), which is still the only known Peruvian locality. Otherwise, the nearest specimen localities are on the Río Juruá, Amazonas, Brazil (Gyldenstolpe 1945b), c. 500 km to the northwest. *B. rikeri* is undoubtedly more widespread than indicated in the current literature; its restriction to palm swamps, to which access is usually difficult, makes its detection difficult.

PERUVIAN RECURVEBILL *Simoxenops ucayalae*

A pair was seen or heard daily in bamboo-dominated undergrowth along a stream at Camino Mucden until netted on 27 and 28 June. KVR photographed an unattended juvenal there on 29 June. As noted by Parker (1982) and Terborgh *et al.* (1984), *S. ucayalae* is found mainly in bamboo thickets. The pair moved through a section of forest that covered at least 4-5 ha. Among the nearby localities, it had been recorded at Tambopata, Manu and Balta and was known previously from only c. 17 specimens (Parker 1982).

OLIVE-BACKED FOLIAGE-GLANER *Automolus infuscatus*

This widespread foliage-gleaner was common and noted daily in upland forest at Camino Mucden, almost always in mixed-species flocks of undergrowth insectivores that usually consisted of a pair or family group each of *Thamnomanes ardesiacus*, *Myrmotherula longipennis*, *M. haematonota*, *M. axillaris*, *Habia rubica*, *Hylophilus ochraceiceps*, and often *Xiphorhynchus spixii*, a group membership similar to that of undergrowth flocks at Manu (Munn & Terborgh 1979) and at Tambopata (TAP). As noted elsewhere in western Amazonia (Remsen & Parker 1984), this species fed almost exclusively by searching hanging dead leaves trapped in small palms and vine tangles, usually 1-8 m above ground. 18 specimens were collected 15 June - 4 Aug. Although listed for Bolivia by Meyer de Schauensee (1970), we have been unable to find any evidence of any previous record for the country. Among the nearby localities, this species had been recorded from Tambopata, Quebrada Juliaca, Manu and Balta.

BROWN-RUMPED FOLIAGE-GLANER *Automolus melanopezus*

At Camino Mucden this uncommon, local species was observed almost daily, mainly in the bamboo understorey of forest, where it searched dead leaves trapped in the crowns of thickets, usually 3-10 m above ground, as noted elsewhere in its range by Parker (1982), Remsen & Parker (1984) and Terborgh *et al.* (1984). Almost always seen in mixed-species flocks dominated by other insectivores that preferred bamboo, namely *Thamnomanes schistogynus*, *Myrmotherula leucophthalma*, *Microrhopias quixensis*, *Drymophila devillei*, *Simoxenops ucayalae* and *Campylorhynchus trochilrostris*. 9 specimens were collected 23 June - 3 Aug. Among the nearby localities, this species had been recorded at Tambopata, Manu, Balta and Hiutanaã.

DUSKY-THROATED ANTSHRIKE *Thamnomanes ardesiacus*

Fairly common in upland forest at Camino Mucden, where noted daily as a member of undergrowth flocks (see *Automolus infuscatus*). *T. ardesiacus* appeared to be replaced in streamside forest, bamboo and tall second-growth by *Thamnomanes schistogynus*; we never noted both species in the same flock, even though *schistogynus* typically foraged slightly

higher, as found in Peru by Schulenberg (1983). Curiously, at Manu *ardesiacus* is characteristically found in the same flocks as *schistogynus* (Munn & Terborgh 1979), and in northern Peru (TAP) *ardesiacus* is characteristically found in the same flocks as *T. caesioides*, the allospecies of *T. schistogynus*. 9 specimens of *ardesiacus* were netted at Camino Mucden 15 June – 4 Aug. Among the nearby localities, it had been recorded at Tambopata, Quebrada Juliaca, Manu and Balta.

SCLATER'S ANTWRN *Myrmotherula sclateri*

TAP saw 2 pairs of this inconspicuous species with mixed-species canopy flocks in tall, river-edge forest along the Río Tahuamanu c. 10 km west of Filadelfia on 15 June. It was also common in the canopy of upland forest at Camino Mucden, usually in mixed-species flocks of canopy insectivores, and less often in pairs or family groups (3–4 birds) away from flocks. TAP observed a pair feeding 2 recently fledged young in a canopy vine tangle on 18 June. 12 specimens were collected by TAP, JAG, KVR, and JVR 17 June – 4 Aug. Our 5 female skins, with 100% ossified skulls, vary markedly in degree of ventral streaking, intensity of ochraceous colour on the head, and blackness of the crown streaks; such variability is presumably responsible for controversy over the validity of *M. kermiti* Cherrie (Zimmer 1932a). Among the nearby localities, this species was recorded from Tambopata and Balta, but it is undoubtedly much more widespread. Known previously from only one specimen from Peru (O'Neill 1969) and about 25 specimens from Amazonian Brazil. See Parker (1982) for additional natural history information.

STREAKED ANTWRN *Myrmotherula surinamensis*

On 12 June a pair was observed in vine tangles and leafy branches overhanging a small pond in swampy forest along the Río Tahuamanu c. 2 km west of Cachuelita along the road to Filadelfia and subsequently was seen feeding 2 nestlings on 25 June (TAP, Bruce Glick). The nest was a small cup of green mosses and a few dried leaves and was decorated with strands of white fungus-like material seemingly identical to material often used by *Myiozetetes* flycatchers. The nest was in a fork of a slender branch c. 0.6 m above water. On 14 and 15 June, 3 pairs were observed in the foliage of trees and vines overhanging an oxbow lake c. 10 km west of Filadelfia, their small territories being spaced linearly along the lake edge. The birds foraged from near the water's edge up as high as 12 m and occasionally joined mixed-species flocks that wandered out of adjacent low-lying forest. As noted elsewhere in its range (Remsen & Parker 1983), *M. surinamensis* was found exclusively near water. Several types of vocalizations were tape-recorded. Among the nearby localities, it had been recorded at Tambopata, Manu and Hiutanaã.

STIPPLE-THROATED ANTWRN *Myrmotherula haematonota*

Common and noted daily at Camino Mucden in upland forest as a characteristic member of mixed-species flocks of undergrowth insectivores (see *Automolus infuscatus*). 23 specimens were collected 16 June – 5 Aug. As noted elsewhere in western Amazonia (Remsen & Parker 1984), *M. haematonota* feeds almost exclusively by searching dead leaves hanging or trapped in the undergrowth, usually within 1–3 m above ground. At Camino Mucden, the closely related *M. leucophthalma*, another dead-leaf specialist (Remsen & Parker 1984), also occurred, but overlapped only slightly with *haematonota* in habitat preference: *haematonota* was found only in upland forest, whereas *leucophthalma* occurred mainly in bamboo-dominated undergrowth and tall second-growth near streams. Their sympatry, along with vocal differences, should remove any lingering doubts concerning the species status of the 2 forms (see e.g. Zimmer 1932a). T. S. Schulenberg has also found both species at the same locality on the north bank of the Río Madre de Dios east of Puerto Maldonado, Dpto. Madre de Dios, Peru. Among the nearby localities, *M. haematonota* had been recorded only at Cachoeira. We also have an unpublished specimen (LSUMZ 68112) from Acre, Brazil, collected by José Hidasi at Rio Branco on 28 May 1968.

Because of differences in size and plumage, we concur with Hilty & Brown (1986) in treating Andean foothill representatives of the *haematonota* group, currently regarded as subspecies of *M. haematonota*, as a full species, *M. spodionota*; this species should include the taxon *sororia* of Peru. An appropriate English name would be "Foothills Antwrn".

LONG-WINGED ANTWRN *Myrmotherula longipennis*

A common member of mixed-species flocks of insectivores in the undergrowth of upland forest at Camino Mucden (see *Automolus infuscatus*). Typically it moved along the slender branches of understorey trees 4–12 m above ground and gleaned the underside of live leaves and twigs. 18 specimens were collected 16 June – 5 Aug. Among the nearby localities, this species had been recorded at Tambopata, Quebrada Juliaca, Manu, Balta and Hiutanaã.

CHESTNUT-SHOULDERED ANTWRN *Terenura humeralis*

At Camino Mucden, this inconspicuous species was noted regularly in upland forest, exclusively in mixed-species flocks of canopy insectivores (see Parker 1982, Munn 1985), usually associating with *Philydor erythropterus*, *Xenops rutilans*, *Hylophilus hypoxanthus*, *Tachyphonus cristatus* and *Hemithraupis flavicollis*, among others. TAP collected one on 21 June, and KVR collected singles on 7, 19 and 25 July. Among the nearby localities, this species had been recorded at Tambopata, Manu and Hiutanaã. The rarity of *T. humeralis* in collections is such that there are only 2 specimen localities for Peru: on the north bank of the Amazon at Pebas (Zimmer 1932b) and on the south bank at E. bank Quebrada Vainilla, c. 10 km SSW mouth Río Napo, where 3 previously unpublished specimens (LSUMZ) were collected by Steven W. Cardiff 22-29 July 1983. The listing for Dpto. Junín, Peru, by Meyer de Schauensee (1966) presumably refers to the female from Ropaybamba that Zimmer (1932b) could not identify to species; but the altitude of Ropaybamba, 2440 m (Stephens & Traylor 1983), however, would indicate that this female is best referred to *T. callinota*, a cloudforest species (Parker *et al.* 1982).

Cercomacra sp. nov.

This undescribed antbird, soon to be named by John Fitzpatrick (see Terborgh *et al.* 1984), was fairly common in nearly pure stands of spiny bamboo (*Guadua* sp.) about 2 km west of Porvenir along the road to Cachuelita and within 1 km of the Río Tahuamanu; 5 specimens were collected by TAP, JVR, and CGS on 24 June and 15 July. It was found in pairs that stayed well hidden in the tangled upper branches and leafy crowns of thickets 2-12 m above ground. Males and females stayed close together as they moved through the dense cover; they perch-gleaned (and occasionally sally-gleaned) bamboo leaves and stems, often lunging at small insects on foliage and sometimes hanging nearly upside down to reach more distant substrates. Territories of 3 pairs, estimated to be 0.5-1.0 ha, encompassed large areas of pure bamboo that were fully exposed to the sun, as well as a smaller portion of somewhat taller, more shaded bamboo mixed with vines and the lower branches of trees in the adjacent second-growth woodland. This species is clearly an edge bird. In Peru it occurs in pure bamboo along river edges (Tambopata Reserve) or road edges (Pilcopata area). It seems to be replaced in bamboo which is within taller, more mature forest by the ecologically similar *Drymophila devillei*. Interestingly, the *Cercomacra* sp. nov. was found in the Río Tahuamanu basin only in an area extensively cleared by man and subsequently overgrown with bamboo. Further west along the same river, TAP found only *C. nigrescens* in river-edge bamboo, and only *C. serva* was noted in bamboo understorey at Camino Mucden. These 3 *Cercomacra* species appear to be patchily distributed, being present in some seemingly suitable areas and absent in others. On 27 June TAP noted extensive thickets of spiny bamboo at several places along the Brasilea-Rio Branco road, Acre, Brazil; *Cercomacra* sp. nov. and other bamboo specialists mentioned in this paper undoubtedly occur there. The *Cercomacra* sp. nov. had previously been recorded only at Tambopata, Manu and Balta.

WHITE-LINED ANTbird "*Percnostola*" *lophotes*

This little known antbird was fairly common in the bamboo habitat 2 km west of Porvenir described under *Cercomacra* sp. nov., where 3 specimens were collected by TAP on 24 June. Also, JAG collected one at Camino Mucden in a bamboo-*Heliconia* thicket near the roadside in disturbed forest along a stream on 15 July, where subsequently, at least 2 pairs were noted daily. *P. lophotes* was found in closely associating pairs that foraged on the ground and in the lower branches of thickets. See Parker (1982) for natural history notes for this rare species, which was known previously from only c. 21 specimens. Among the nearby localities, it had been recorded only at Tambopata and Manu. This antbird is probably increasing and spreading through bamboo that is colonizing cleared areas along roads and abandoned gardens in southwestern Amazonia.

SPOT-WINGED ANTbird *Percnostola leucostigma*

Fairly common at Camino Mucden along forest streams, where it foraged on the ground and also low in dense undergrowth, especially ferns. 20 specimens were collected 18 June - 29 July. Among the nearby localities, this species had been recorded only at Hiutanaã.

GOELDI'S ANTbird *Myrmeciza goeldii*

Fairly common in bamboo understorey of second-growth woodland c. 2 km west of Porvenir, and also in the undergrowth of tall, swampy forest along the Río Tahuamanu west of Cachuelita, especially in or near thickets of *Heliconia* and bamboo. Also, JVR collected an adult female on 2 July in a bamboo thicket at Camino Mucden; the absence of other records

from this locality indicated that it was almost certainly a wandering individual from low-lying forest elsewhere. See Parker (1982) for natural history notes for this species, known previously from only c. 10 specimens from southeastern Peru and southwestern Brazil (Tambopata, Manu, Balta, Bom Lugár and Ponto Alegre).

SOOTY ANTbird *Myrmeciza fortis*

Noted daily at Camino Mucden at or near army ant swarms in upland forest and occasionally in second-growth. Pairs wandered widely through large areas. 14 specimens were collected 16 June – 1 Aug. Among the nearby localities, this species had been recorded at Manu, Balta and Río Iquiri.

REDDISH-WINGED BARE-EYE *Phlegopsis erythroptera*

On 24 July, JVR saw 2-3 individuals scolding in the vicinity of a juvenal caught in a mist net; later in the day, 2 adults were captured in the same net line. The nearest published locality for this species is Arimã on the Río Purús (Todd 1927), c. 840 km northeast of our site. Pinto (1938) and Meyer de Schauensee (1966) indicated that the range of *P. erythroptera* includes the Río Juruá, but we are unable to find any published locality records from this region nor were any listed by Gyldenstolpe (1945b).

STRIATED ANTHRUSH *Chamaeza nobilis*

TAP and JAG collected one of a pair in upland forest at Camino Mucden on 21 June. JVR heard and saw 1-2 individuals in the same area on 4 days 26 July – 6 Aug. See Parker (1982) for natural history notes on this species. Among the nearby localities, it had been recorded at Tambopata, Manu and Balta.

RUFIOUS-CAPPED ANTHRUSH *Formicarius colma*

Fairly common in upland forest at Camino Mucden, usually seen singly, always on the ground, and occasionally at ant swarms. Three specimens were collected by MSS, JAG and JVR, and 5 more were netted 15 June – 29 July. Among the nearby localities, this species had been recorded at Tambopata, Quebrada Juliaca, Manu, Balta, Río Iquiri, Bom Lugár and Ponto Alegre.

THRUSH-LIKE ANTPITTA *Myrmothera campanisona*

TAP collected one on 18 June in dense undergrowth near a stream in upland forest at Camino Mucden, and JVR collected one found there by MSS on 24 July. Only a few others were heard, all in thick undergrowth of forest treefalls or along streams. Among the nearby localities, *M. campanisona* had been recorded at Tambopata, Manu and Balta.

WHITE-LORED TYRANNULET *Ornithion inerne*

This small, vireo-like flycatcher was fairly common in all forest types visited, but might have been overlooked entirely but for familiarity with its song (see Parker 1982). Noted daily in the canopy of riverine forest along the Río Tahuamanu and upland forest and tall second-growth at Camino Mucden in small numbers, either with large, mixed-species canopy flocks or solitarily. JAG and KVR collected 2 specimens, including a juvenile, on 6 July, and KVR collected one on 15 July. Among the nearby localities, this species had been recorded at Tambopata, Manu and Balta.

LONG-CRESTED PYGMY-TYRANT *Lophotriccus eulophotes*

This little known species was fairly common in riverine forest, swamp forest, and second-growth along the Río Tahuamanu west of Porvenir and Cachuelita, where it preferred shaded bamboo undergrowth along edges. Noted at Camino Mucden almost daily in bamboo thickets and tall road-edge second-growth, as well as at certain large treefalls in upland forest. Usually found singly but sometimes with mixed-species flocks in bamboo. *L. eulophotes* typically made upward sallies under 1 m in distance to leaves and stems, mainly 4-10 m above ground. Most individuals behaved as if territorial and often uttered a rapid series of 5-8 "tic" notes and occasionally gave a short, slightly descending trill. 2 specimens were collected 2 km west of Porvenir 17 June (TAP) and 15 July (JVR), 7 additionally by JVR, KVR, CEQ, and JAG at Camino Mucden 21 June – 25 July. Previously known only from 11 specimens, 5 in the type series from Hiutanaa, 4 from Balta and 2 previously unpublished specimens from Altamira, 400 m, Río Manu, Dpto. Madre de Dios, Peru, collected by C. Kalinowski on 15 Feb and 2 March 1964 (Field Mus. Nat. Hist. #320304-05).

BROWNISH FLYCATCHER *Cnipodectes subbrunneus*

This peculiar flycatcher was fairly common but locally distributed in dense undergrowth of upland and streamside forest, particularly in bamboo. Singing birds were widely and unevenly distributed through the forest. One or two males sang incessantly from a few low

(0.5-1 m) perches in seemingly very small, adjoining territories; they were shy and seemed disinterested in playbacks of their songs, therein behaving in the manner of several manakins, e.g. *Neopelma* spp. and *Tyrannetes* spp. (TAP). This species' lek or lek-like social system, the aberrant structure of its primaries (Zimmer 1939) and its bright red iris makes this a very atypical tyrannid. 15 specimens were collected 18 June - 18 July. Among the nearby localities, this species had been recorded only at Balta.

DUSKY-CHESTED FLYCATCHER *Myiozetetes luteiventris*

Noted daily at Camino Mucden in small mudens, mainly high in the canopy of upland forest in the vicinity of treefalls and at the forest edge. As elsewhere in its range (Remsen 1977), usually observed in pairs, but seen also in groups of 3-4, typically perching on the tops of large leaves in the uppermost layer of foliage. Along edges and in treefalls, individuals perch-gleaned and sally-gleaned small purple fruits of melastomes (a *Miconia*?) and other fruiting trees, and were seen frequently in the tops of forest *Cecropia* (the fruits of which they commonly eat in Peru - TAP). *M. luteiventris* can be overlooked easily without familiarity with its nasal, down-slurred, usually double-noted "chew, chew" call (Remsen 1977) and less often, an explosive "chew-tew-tew". 9 specimens were collected by TAP, MSS, CGS, KVR, JAG and JVR 18 June - 7 Aug. Among the nearby localities, it had been recorded at Tambopata, Manu, Balta and Rio Iquiri. We doubt that this species is an austral migrant, as proposed by Hilty & Brown (1986), because: (a) it does not occur outside the Amazon-Orinoco basins; (b) it occurs in pairs during the austral winter (TAP and JVR); and (c) the only known nest was found by Mark B. Robbins in August 1983 (Lanyon 1984) in the austral winter.

SULPHURY FLYCATCHER *Tyrannopsis sulphurea*

TAP saw a pair c. 1 km N Porvenir on 10 June in the tops of *Mauritia* palms, to which it seems to be restricted in Peru (Remsen & Parker 1983; TAP), where it is found in the interior of swampy forest as well as in clearings, and even in isolated palms around houses; but it seems to be most common in palm groves along the edges of oxbow lakes. Although they often perch in the open on palm fronds, they are more often heard than seen. Calls include a loud, thin "peeet" or "feeet", often followed by a chattering call given simultaneously by both birds of a pair. Among the nearby localities, *T. sulphurea* had been recorded only at Tambopata and Quebrada Juliaca (Pampas de Heath); it is probably much more widespread than specimen records indicate.

BLUE-BACKED MANAKIN *Chiroxiphia pareola regina*

Common at Camino Mucden in undergrowth in upland forest, particularly in the vicinity of old, overgrown treefalls. 38 specimens were collected 15 June - 6 Aug. The nearest previously known localities were on the upper Rio Jurua, Brazil (Gyldenstolpe 1945b), c. 500 km to the northwest.

We strongly recommend elevation to full species status of *C. p. boliviana* of the foothills of the Andes of southern Peru and northern Bolivia. Not only are the morphological differences between *boliviana* and *pareola/regina* considerable (Hellmayr 1929), but the song and display of *boliviana* differs markedly from those of *pareola* and *regina* (TAP and LNS). We suggest the English name "Yungas Manakin" for *C. boliviana*.

WHITE-THIGGED SWALLOW *Neochelidon tibialis*

One netted in an open area in second-growth along a small stream on 28 June. Subsequently, a flock of 5-10 was seen irregularly nearby, mainly roosting in a large, isolated tree in a large overgrown garden. From this flock, CGS collected 4 additional specimens on 6 Aug. Among the nearby localities, *N. tibialis* had been recorded only at Rio Iquiri.

VIOLACEOUS JAY *Cyanocorax violaceus*

This noisy, usually conspicuous jay was seemingly uncommon in cutover areas with scattered patches of trees and bushes along the Cobija-Porvenir road and west of Porvenir along the road to Cachuelita; also seen in second-growth at the forest edge c. 5 km east of the Camino Mucden site. 4 were collected by CGS and KVR on 15 July c. 20 km by road south of Cobija in second-growth near a stream through cattle pastures. It was encountered in groups of 6-10 that were often seen flying, one bird at a time, across large clearings between wooded areas. Among the nearby localities, *C. violaceus* had been recorded at Tambopata, Manu and Balta.

BUFF-BREASTED WREN *Thryothorus leucotis*

Common to abundant in the undergrowth of swamp forest along the Rio Tahuamanu east and west of Cachuelita; also found in the *Mauritia* swamp north of Porvenir and along the

edge of an oxbow lake 10 km west of Filadelfia – at least 10 pairs were heard along the edge of swamp forest bordering 1–1.5 km of the Cachuelita-Filadelfia road on 12 June. Pairs foraged from near the ground in dense undergrowth up to 12 m, especially in vine tangles, where they searched for insects in trapped dead leaves and other debris. 1–2 pairs were also heard and tape-recorded in river-edge thickets of short trees (*Tessaria integrifolia*) and tall grass bordering a taller, vine-covered woodland of *Cecropia*; there, and in several patches of bamboo in swamp forest west of Cachuelita, their territories seemed to abut or slightly overlap those of *Thryothorus genibarbis*, and possible counter-singing bouts between the 2 species were taped. CGS collected one at the edge of the *Mauritia* swamp 1 km north of Porvenir on 18 July. See Parker (1982) and Hilty & Brown (1986) for additional natural history notes on this species. Among the nearby localities, *T. leucotis* had been recorded at Tambopata, Balta, Bom Lugar and Monte Verde. It is evidently replaced in Bolivia south of the Río Madre de Dios by *T. guarayanus*, which has been recorded on the south bank at Victoria, Dpto. Pando (Gyldenstolpe 1945a).

LAWRENCE'S THRUSH *Turdus lawrencii*

TAP and Bruce Glick tape-recorded one as it sang from the canopy of swampy forest along a stream c. 4 km NE of Porvenir along the road to Puerto Rico on 25 June. During one song bout of more than 10 minutes, this individual imitated more than 70 species, including 16 species of antbirds, 15 flycatchers, 5 manakins, and 3 parrots. Some individual *T. lawrencii* mimic more than 100 species in a single bout, including calls and entire (but short) song phrases of their models. Each imitated sound is cleanly separated from others by 4–5 sec intervals. As usual with this species, the above individual did not respond to playbacks of its mimic-type song but continued singing without a pause; it was, however, very responsive to playbacks of its twangy call note, a vocalization that seems to function as a territorial call. JVR also heard and glimpsed another individual, apparently a wanderer, that sang a brief sequence of about 20 imitated vocalizations in the canopy above a stream at the forest edge at Camino Mucden on 18 July, and a second singing endlessly in similar habitat near the cattle pasture on 28 July, where it was subsequently heard by KVR and JAG. This species' habit of singing high in the canopy without moving for long periods of time makes seeing the bird very difficult; its true distribution is no doubt much wider than currently indicated by specimen records. See Parker (1982), Hardy & Parker (1985) and Hilty & Brown (1986) for natural history notes on this rare species. Among the nearby localities, it had been recorded only at Tambopata and Manu.

MASKED CRIMSON TANAGER *Ramphocelus nigrogularis*

On 14 June TAP observed a flock of at least 6 of these unmistakable tanagers with a mixed-species flock in the lower canopy of riverine forest along the Río Tahuamanu c. 10 km west of Filadelfia, and later saw 12 in the tops of *Cecropia* trees along the river edge, which were in the company of several *R. carbo*; both species were searching the stems and undersides of *Cecropia* leaves. These were the only records obtained during 6 days of fieldwork in the Tahuamanu basin, suggesting that although in typical riverine habitat (Remsen & Parker 1983, Hilty & Brown 1986, Isler & Isler, in press), the above birds were at the extreme eastern boundary of their range in Pando. Among the nearby localities, this species had been recorded at Tambopata, Manu, Balta, Bom Lugar, Monte Verde, Ponto Alegre and Hiutanaã. We also have 2 unpublished specimens (LSUMZ 67844–45) from Acre, Brazil, collected by F. Novaes at Vila Taumaturgo, Rio Jurua, on 27 July 1956.

OPAL-CROWNED TANAGER *Tangara callophrys*

Observed at Camino Mucden on 15 of 51 field days in upland forest, mainly in mixed-species flocks of canopy tanagers that usually included *T. velia* (10 specimens, at this the second locality for Bolivia) and *T. chilensis*. All 3 species characteristically searched for insects on the sides and undersides of branches of canopy trees, particularly deciduous emergents or dead branches of leafy trees, by leaning down from side-to-side in the motion characteristic of many *Tangara* (Snow & Snow 1971; Hilty & Brown 1986; Isler & Isler, in press). *T. callophrys* searched, on the average, larger branches than the other 2 species, and *T. chilensis*, smaller branches, including twigs 1 cm or less in diameter. JAG collected 5 specimens 19–30 July. Among the nearby localities, this species had been recorded at Tambopata, Manu, Balta and Ponto Alegre.

BUFF-RUMPED WARBLER *Phaeothlypis fulvicauda*

Noted regularly along streams at Camino Mucden. One specimen was netted on 3 July, and 2, including a juvenal, on 7 Aug. Among the nearby localities, this species had been recorded

at Tambopata, Manu, Balta and Hiutanaã. Further south in Bolivia *P. fulvicauda* is replaced by *P. rivularis* at the base of the Andes in Dptos. Beni, La Paz, Cochabamba and Santa Cruz (Remsen & Traylor, in press).

RED-BREASTED BLACKBIRD *Leistes militaris*

We had assumed that the numerous *Leistes* seen in the Cobija-Porvenir area were *L. supercilialis* until CEQ pointed out that a male collected by JAG on 25 July in a cattle pasture at Camino Mucden was *L. militaris*. Subsequently, 15 additional specimens were collected there 28-31 July. Many had enlarged gonads, males were actively singing and displaying, and 2 recently fledged juvenals were collected, showing that these records were of a resident population, not wanderers or migrants. On 26 and 27 June TAP found this species to be common in pastures along the Brasília-Rio Branco road in Acre, Brazil. Among the nearby localities, *L. militaris* had been recorded only at Rio Branco. As in Colombia (Hilty & Brown 1986), this species may be expanding its range rapidly in southwestern Amazonia in response to the conversion of forest to pasture; if this continues, contact between *militaris* and *superciliaris* of northern Bolivia, often considered conspecific, may be imminent.

Although we acknowledge that Short's (1968) arguments are persuasive for an evolutionary continuum in his expanded genus *Sturnella* from *Leistes* to *Pezites* to *Sturnella sensu strictu*, we are uncomfortable with the merger of *Leistes militaris* and *L. supercilialis* into *Sturnella* because of several behavioural and morphological traits shared with some species in the genus *Agelaius*, especially *A. phoeniceus* and *A. tricolor*. Both *superciliaris* and *militaris* give conspicuous flight song displays with flared epaulets that are remarkably similar to those given by *A. phoeniceus* (and unlike *Sturnella sensu strictu*). Both species have brown, streaked juvenal plumages that are very similar to the juvenal plumages of several *Agelaius* (and unlike *Sturnella sensu strictu*). Both species occur in large, conspicuous flocks that move over relatively long distances like *A. phoeniceus* (and unlike *Sturnella sensu strictu*). Whether these similarities are due to convergence, sharing of primitive characters, or a closer relationship between *Leistes* and *Agelaius* than between *Leistes* and *Sturnella* has yet to be resolved. A further complication is that the species *Leistes bellicosa*, considered by Short (1968) to be a member of a superspecies with *militaris* and *superciliaris*, is more *Sturnella*-like in behaviour (S. W. Cardiff).

Acknowledgements: Our studies in Dpto. Pando were funded by the National Geographic Society. For permission to work in Bolivia, we are grateful to the Museo Nacional de Historia Natural (La Paz), through Ing. Magin Zubieta V. and Dr Luis Felipe Harmann, and to the Centro de Desarrollo Forestal, through José Tuesta H. and Ing. For. Luíz Cabrera Vaca. We are grateful to our colleagues in the field who not only made this project possible but gave us permission to use their records: Eliana I. Flores de Capriles, John A. Gerwin, Bruce D. Glick, Ann K. Kohlhaas, Carlos E. Quintela, Kenneth V. Rosenberg, José H. Sánchez Ch., Manuel Sánchez S., C. Gregory Schmitt and Donna C. Schmitt. DCS expertly prepared many of the most important specimens. EIF and CEQ were instrumental in obtaining permits. Our project benefited greatly from assistance from José and Adrián Camargo, Kenneth E. Campbell, Bruce and Helen Glick, Fritz Hertel, José Miguel, Dr Enrique Quintela, and Dolores Arce de Quintela. W. L. Brown provided a critical reference, and John W. Fitzpatrick generously provided information on specimens at the Field Museum of Natural History. We thank T. S. Schulenberg for comments on the manuscript.

References:

- Cory, C. B. 1918. *Catalogue of Birds of the Americas*, Part II. No 1. Field Mus. Nat. Hist., Zool. Ser. Vol 13.
- Cory, C. B. & Hellmayr, C. E. 1925. *Catalogue of Birds of the Americas*. Part IV. Field Mus. Nat. Hist., Zool. Ser., Vol 13.
- Graham, G. L., Graves, G. R., Schulenberg, T. S. & O'Neill, J. P. 1980. Seventeen bird species new to Peru from the Pampas de Heath. *Auk* 97: 366-370.
- Gyldenstolpe, N. 1945a. A contribution to the ornithology of northern Bolivia. *Kungl. Svenska Vet.-Akad. Handl.* 23: 1-300.
- Gyldenstolpe, N. 1945b. The bird fauna of the Rio Juruá in western Brazil. *Kungl. Svenska Vet.-Akad. Handl.* 22: 1-338.
- Gyldenstolpe, N. 1951. The ornithology of the Rio Purús region in western Brazil. *Arkiv Zool.* 2: 1-320.

- Haffer, J. 1974. Avian speciation in tropical South America. *Publ. Nuttall Ornith. Club* No 14.
- Hardy, J. W. and Parker, T. A. III. 1985. *Voices of New World Thrushes*. ARA records.
- Hellmayr, C. E. 1929. *Catalogue of birds of the Americas*. Part VI. Field Mus. Nat. Hist., Zool. Ser. Vol 13.
- Hilty, S. L. & Brown, W. L. 1986. *A Guide to the Birds of Colombia*. Princeton Univ. Press, 836 pp.
- Isler, M. L. & Isler, P. R. (in press). *The Tanagers: Natural History, Distribution, and Identification*. Smithsonian Inst. Press.
- Lanyon, W. E. 1984. A phylogeny of the kingbirds and their allies. *Amer. Mus. Novit.* No 2797.
- Meyer de Schauensee, R. M. 1966. *The Species of Birds of South America and their Distribution*. Livingston.
- Meyer de Schauensee, R. M. 1970. *A Guide to the Birds of South America*. Livingston.
- Munn, C. 1985. Permanent canopy and understory flocks in Amazonia: species composition and population density. Pp. 683-712 in *Neotropical Ornithology* (Buckley, P. A. et al. eds). Ornith. Monogr. No 36.
- Munn, C. & Terborgh, J. 1979. Multi-species territoriality in Neotropical foraging flocks. *Condor* 81: 338-347.
- O'Neill, J. P. 1969. Distributional notes on the birds of Peru, including twelve species previously unreported from the republic. *Occ. Pap. Mus. Zool., Louisiana State Univ.* No 37.
- O'Neill, J. P. 1974. *The Birds of Balta*, a Peruvian dry tropical forest locality, with an analysis of their origins and ecological relationships. Unpubl. Ph.D. dissertation, Louisiana State Univ.
- Parker, T. A. III. 1982. Observations of some unusual rainforest and marsh birds in south-eastern Peru. *Wilson Bull.* 94: 477-493.
- Parker, T. A. III, Parker, S. A. & Plenge, M. A. 1982. *An Annotated Checklist of Peruvian Birds*. Buteo Books.
- Pearson, D. L. 1975. Range extensions and new records for bird species in Ecuador, Peru, and Bolivia. *Condor* 77: 96-99.
- Pinto, O. M. de O. 1938. *Catalogo das Aves do Brasil*. Museo Paulista, 566 pp.
- Pinto, O. M. de O. and E. A. de Camargo. 1954. Resultados ornitológicos de uma expedição ao Território do Acre pelo Departamento de Zoologia. *Papéis Avulsos* 11: 371-418.
- Remsen, J. V. Jr. 1977. A third locality in Colombia for the Dusky-chested Flycatcher *Tyrannopsis luteiventris*. *Bull. Brit. Orn. Cl.* 97: 93-94.
- Remsen, J. V. Jr & Parker, T. A. III. 1983. Contribution of river-created habitats to bird species richness in Amazonia. *Biotropica* 15: 223-231.
- Remsen, J. V. Jr & Parker, T. A. III. 1984. Arboreal dead-leaf-searching birds of the Neotropics. *Condor* 86: 36-41.
- Remsen, J. V. Jr & Ridgely, R. S. 1980. Additions to the avifauna of Bolivia. *Condor* 82: 69-75.
- Remsen, J. V. Jr and Traylor, M. A. Jr. 1983. *An Annotated Checklist of the Birds of Bolivia*. Buteo Books (in press).
- Ripley, S. D. 1977. *Rails of the World*. David R. Godine.
- Schulenberg, T. S. 1983. Foraging behavior, eco-morphology, and systematics of some ant-shrikes (Formicariidae: *Thamnomanes*). *Wilson Bull.* 95: 505-521.
- Snethlage, E. 1908. Eine Vogelsammlung vom Rio Purús, Brasilien. *J. Orn.* 41: 7-24.
- Snow, B. K. & Snow, D. W. 1971. The feeding ecology of tanagers and honeycreepers in Trinidad. *Auk* 88: 294-322.
- Stephens, L. & Traylor, M. A. Jr. 1983. *Ornithological Gazetteer of Peru*. Museum Comp. Zool.
- Terborgh, J., Fitzpatrick, J. W. & Emmons, L. 1984. Annotated checklist of bird and mammal species of Cocha Cashu Biological Station, Manu National Park, Peru. *Fieldiana* (Zoology) No 21.
- Todd, W. E. C. 1916. Preliminary diagnoses of fifteen apparently new Neotropical birds. *Proc. Biol. Soc. Washington* 29: 95-98.
- Todd, W. E. C. 1927. New gnateaters and antbirds from tropical America, with a revision of the genus *Myrmeciza* and its allies. *Proc. Biol. Soc. Washington* 40: 149-178.

- Willis, E. O. 1982. The behaviour of Red-billed Woodcreepers (*Hylexetastes perrotti*). Rev. Bras. Biol. 42: 655-666.
- Zimmer, J. T. 1932a. Studies of Peruvian birds. III. The genus *Myrmotherula* in Peru, with notes on extralimital forms. Part 1. Amer. Mus. Novit. No 523. 1932b. VIII. The formicarian genera *Cymbilaimus*, *Thamnistes*, *Terenura*, *Pernostola*, *Formicarius*, *Chamaeza*, and *Rhegmatorhina*. Amer. Mus. Novit. No 584.
- Zimmer, J. T. 1939. Studies of Peruvian birds. No 31. Notes on the genera *Myiotriccus*, *Pyrrhomyias*, *Myiophobus*, *Onychorhynchus*, *Platyrinchus*, *Cnipodectes*, *Sayornis*, and *Nuttalornis*. Amer. Mus. Novit. No 1043. 1950. No 55. The hummingbird genera *Doryfera*, *Glaucis*, *Threnetes*, and *Phaethornis*. Amer. Mus. Novit. No 1449.

Addresses: Theodore A. Parker III & Dr J. V. Remsen Jr, Museum of Zoology, Louisiana State University, Baton Rouge, Louisiana, USA 70803.

© British Ornithologists' Club 1987

On the Red-throated Wryneck *Jynx ruficollis* Wagler, 1830, in East Africa

by P. A. Clancey

Received 9 October 1986

Jynx ruficollis Wagler, 1830: Korrumus Mtns, Uitenhage, eastern Cape, ranges from Cameroon, the Central African Republic, the southern Sudan and Ethiopia, south in the west to Angola and in the east to Swaziland and eastern and southeastern South Africa. The southern African populations are remotely disjunct, the species as a whole exhibiting a remarkably high level of vicariance. In the east and southeast of the range it is absent between the north of the Transvaal and northern and eastern Tanzania and southwestern Uganda in Kigezi, with only records of vagrants occurring between these 2 blocks of populations. The morphological differences separating the southern isolates from the populations present further north to c. 1°50'N in Africa are relatively minor, but strikingly different to those exhibited by elements occurring still further north in the Ethiopian highlands, west to mid-Cameroon.

Geographical variation in *J. ruficollis* affects general size, the degree of vermiculation and the amount of reddish brown overlay to the otherwise greyish dorsum with its dark mesial streak, the extent of the fine black-and-white barring over the lateral head and fore-throat, and the shade and distribution of the rufous over the throat and upper breast. Plumage colouration is much influenced by environmental factors, the dorsum and wings progressively greying through the action of the sun and wear, while the venter whitens.

In 1915 C. H. B. Grant separated the Kenyan population from that of South Africa as *J.r. cosensi* on the basis of a larger size character. While *cosensi* initially received recognition, albeit frequently qualified, it is currently treated by most workers as a synonym of the nominate subspecies, as in Britton (1980), where only *J.r. ruficollis* is admitted for East Africa. Earlier, research by Clancey (1952) and Traylor (1960) demonstrated incontrovertibly that the nominate race is, in fact, confined to the Republic of South Africa, and is one of 2 races in the detached southern sector of the